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INTERNATIONAL PRELIMINARY EXAMINATION REPORT
(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 62386B	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Examination Report (Form PCT/PEA/416)	
International application No. PCT/US 03/16265	International filing date (day/month/year) 22.05.2003	Priority date (day/month/year) 02.08.2002
International Patent Classification (IPC) or both national classification and IPC C07F7/28		
Applicant DOW GLOBAL TECHNOLOGIES INC. et al.		
<p>1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of 5 sheets, including this cover sheet.</p> <p><input type="checkbox"/> This report is also accompanied by ANNEXES, i.e. sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT).</p> <p>These annexes consist of a total of sheets.</p>		
<p>3. This report contains indications relating to the following items:</p> <p>I <input checked="" type="checkbox"/> Basis of the opinion</p> <p>II <input type="checkbox"/> Priority</p> <p>III <input type="checkbox"/> Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p>IV <input type="checkbox"/> Lack of unity of invention</p> <p>V <input checked="" type="checkbox"/> Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p>VI <input type="checkbox"/> Certain documents cited</p> <p>VII <input type="checkbox"/> Certain defects in the international application</p> <p>VIII <input type="checkbox"/> Certain observations on the international application</p>		
Date of submission of the demand 22.01.2004	Date of completion of this report 15.07.2004	
Name and mailing address of the International preliminary examining authority:  European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465	Authorized Officer Zellner, A Telephone No. +49 89 2399-8078	



**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT**

International application No. **PCT/US 03/16265**

I. Basis of the report

1. With regard to the **elements** of the international application (*Replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report since they do not contain amendments (Rules 70.16 and 70.17)*):

Description, Pages

1-20 as originally filed

Claims, Numbers

1-6 as originally filed

2. With regard to the **language**, all the elements marked above were available or furnished to this Authority in the language in which the international application was filed, unless otherwise indicated under this item.

These elements were available or furnished to this Authority in the following language: , which is:

- ☐ the language of a translation furnished for the purposes of the international search (under Rule 23.1(b)).
☐ the language of publication of the international application (under Rule 48.3(b)).
☐ the language of a translation furnished for the purposes of international preliminary examination (under Rule 55.2 and/or 55.3).

3. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, the international preliminary examination was carried out on the basis of the sequence listing:

- ☐ contained in the international application in written form.
☐ filed together with the international application in computer readable form.
☐ furnished subsequently to this Authority in written form.
☐ furnished subsequently to this Authority in computer readable form.
☐ The statement that the subsequently furnished written sequence listing does not go beyond the disclosure in the international application as filed has been furnished.
☐ The statement that the information recorded in computer readable form is identical to the written sequence listing has been furnished.

4. The amendments have resulted in the cancellation of:

- ☐ the description, pages:
☐ the claims, Nos.:
☐ the drawings, sheets:

5. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed (Rule 70.2(c)).

(Any replacement sheet containing such amendments must be referred to under item 1 and annexed to this report.)

6. Additional observations, if necessary:

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**V. Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability;
citations and explanations supporting such statement**

1. Statement

Novelty (N)	Yes: Claims	1-6
	No: Claims	
Inventive step (IS)	Yes: Claims	
	No: Claims	1-6
Industrial applicability (IA)	Yes: Claims	1-6
	No: Claims	

2. Citations and explanations

see separate sheet

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EXAMINATION REPORT - SEPARATE SHEET**

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The following documents (D) are referred to in this communication; the numbering will be adhered to in the rest of the procedure:

D1: US-A-5965756
D2: US-B1-6369176
D3: US-B1-6420507
D4: WO-A-9849212

The present application relates to metal complexes and to a polymerization process comprising the use of said metal complexes.

item V

1. Novelty (Art. 33(2) PCT)

Metal complexes according to present claim 1 comprise a C₆₋₁₂ aryl group as a substituent R". None of the documents cited in the International Search Report explicitly discloses compounds comprising the said feature. The application thus meets the requirements of Art. 33(2) PCT.

2. Inventive step (Art. 33(3) PCT)

2.1. Documents D1-D3 generically disclose compounds for use in polymerization processes. The subject-matter of present claim 1 can be seen a selection out of the generic disclosure of D1-D3. Document D1 can be considered to represent the most relevant state of the art. The generic disclosure (compound of formula (I), col. 1, l. 45 to col. 2, l. 31) encompasses the presently claimed compounds (D1: R" = hydrocarbyl). D1 discloses examples wherein an aryl group is attached to position 3 of the indacenyl group. In contrast, the compounds according to general formula (I) of the present application require an aryl group at position 4. The problem to be solved can be considered as to provide alternative compounds for the use as catalyst components in polymerization processes. The presently claimed compounds are falling within the general formula I according to D1. It thus appears obvious for the skilled person to provide, starting from the teaching of D1, further compounds falling within the generic formula of D1 in order to solve the technical problem stated above.

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The presently claimed subject-matter is thus not considered based on an inventive step. The requirements of Art. 33(3) PCT are not met.

- 2.2. It is noted that applicant could show by way of comparison that the presently claimed compounds appear to be superiour to certain compounds disclosed in D1 (Table 1 of the present application). Document D1, however, discloses more relevant compounds, i.e. compounds comprising aryl groups attached to the indacene structure (see the examples cited in the search report). In case applicant can provide convincing evidence showing that the presently claimed compounds also show unexpected properties when compared to the structurally most related compounds disclosed in D1, the presence of an inventive step could be acknowledged.

3. Industrial applicability (Art. 33(4) PCT)

Can be acknowledged for the present claims.